

**Information Services
Industry Forecast
1988-1993**

**Robert L. Goodwin
Vice President
INPUT**







Information Services Industry Forecast 1988-1993

INPUT

NOTES:

MPRE89-35



Research Methodology

Vendor
Surveys

Analysis
Bottoms-Up

- 500 Largest
- Revenues: Current/
Prior Years
- Growth Rates
- Industries
- Delivery Mode (7)
- Industry Sector (22)

INPUT

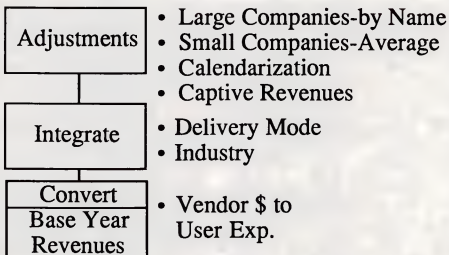
NOTES:

MAAP-36

MPRE89-36



Research Methodology



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MAAP-36.1

MPRE89-37



Research Methodology

Project 5-Year
Growth

Annual Forecasts
Reports (5)

- 500 User Surveys
- Technology
- Economics
- Vendor Activity
- Industry Trend
- Driving Forces
- Inhibiting Forces

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NOTES:

MAAP-36.2

MPRE89-38



All INPUT Forecasts Are for U.S.
Non-Captive User Expenditures,
in Current Period Dollars.

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JJ88-RG1-14

MPRE89-39



GNP Nominal Growth Rate Assumptions (Percent)

	1987A	1988A	1989E	1993E
Real GNP	3.4	3.8	2.8	3.0
*GNP Deflator	3.3	3.4	5.5	4.5
Nominal GNP	6.7	7.2	8.3	7.5

*Year-to-Year Comparisons

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NOTES:

MAAP-56

MPRE89-40



Growth Rates By Delivery Mode (Percent)

Applications Software

	1987A	1988E	1989E	1993E
Real Growth	20.7	19.5	16.5	15.0
Price Deflator	3.3	4.5	5.5	4.5
Nominal Growth	24.0	24.0	22.0	18.0

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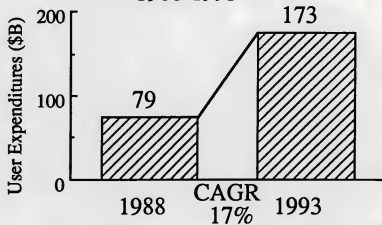
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MAAP-57d

MPRE89-43



Information Services Industry Forecast
1988-1993



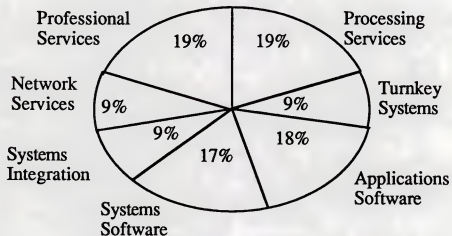
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NOTES:

MPRE89-51



Projected Information Services Markets by Mode of Service—1993



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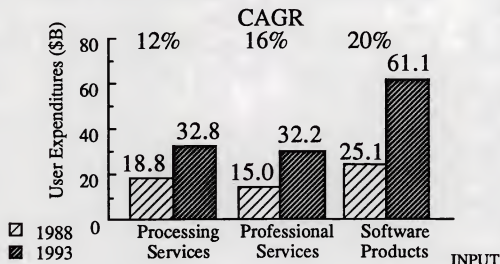
NOTES:

JJ88-DW1-29

MPRE89-52



Information Services Industry Forecast by Delivery Modes, 1988-1993



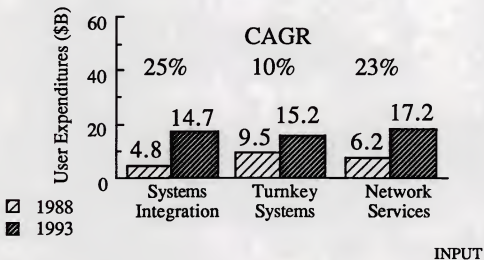
NOTES:

MAAP-39

MPRE89-53



Information Services Industry Forecast by Delivery Modes, 1988-1993



NOTES:

MAAP-40

MPRE89-54



Preliminary Results

1989 Forecast Activity

**330 Interviews of
Information Services Vendors**

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NOTES:

MPRE89-54a



Preliminary Results 1989 Vendor Survey

Delivery Mode	# of Respondents	1987-1988 Revenue Growth (%)
Processing Services	47	13
Network Services	20	35
Application Software	152	25
Systems Software	48	30
Turnkey Systems	63	20
Systems Integration	23	31
Professional Services	91	23

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NOTES:

MPRE89-54b



Incremental Industry Expenditures by Delivery Mode, 1988-1993

Delivery Mode	\$B Added over 5-Yr Period
Total Software	38
- Systems Products	20
- Applications Products	18
Professional Services	18
Processing Services	14

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NOTES:

MPRE89-55



Incremental Industry Expenditures by Delivery Mode, 1988-1993

Delivery Mode	\$B Added Over 5-Yr Period
Network Services	12
Systems Integration	11
Turnkey Systems	6
Total	99

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NOTES:

JJ88-RDW-7b

MPRE89-56

Information Services Leading Vendors

Vendors	1988 U.S. Revenues (\$B)*	Market Share (Percent)
IBM	5.7	7
** EDS	1.7	2
ADP	1.6	2
DEC	1.3	2
Unisys	1.2	2
CSC	1.0	1

Top Ten Vendors=20% of Industry Total

* INPUT Estimates

** Non-GM Business

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NOTES:

JJ88-RDW-8a

MPRE89-57



Information Services Leading Vendors

Vendors	1988 U.S. Revenues (\$B)*	Market Share (Percent)
Andersen Consulting	1.0	1
McDonnell Douglas	0.9	1
CDC	0.9	1
Computer Associates	0.7	1

Top Ten Vendors=20% of Industry Total

* INPUT Estimates

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NOTES:

MPRE89-58



Leading Independent Information Services Vendors

Vendors	1988 U.S. Revenues (\$B)*
ADP	1.6
CSC	1.0
Computer Assoc.	0.7
Intergraph	0.7
Lotus	0.4
Shared Medical	0.4
Microsoft	0.3
Oracle	0.3
MSA	0.2
Compugraphics	0.2

* INPUT Estimates

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NOTES:

JJ88-RDW-9a

MPRE89-59a,b



Worldwide Markets-1987

	\$ Billions				
	U.S.	Europe	Japan	Others	Total
Computer Equip.	54	33	28	6	121
Maintenance	12	8	6	1	27
Software	20	9	8	4	41
Computer Svcs.*	47	23	10	2	82
Total	133	73	52	13	271

* Processing Services, Network Services,
Professional Services, Systems Integration

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NOTES:

MPRE89-59c



Worldwide Markets-1992

	\$ Billions				
	U.S.	Europe	Japan	Others	Total
Computer Equip.	88	50	50	12	200
Maintenance	16	13	7	2	38
Software	51	24	28	12	115
Computer Svcs.*	97	52	24	4	177
Total	252	139	109	30	530

* Processing Services, Network Services,
Professional Services, Systems Integration

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MPRE89-59d



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Telex 171407 FAX (415) 961-3966

4-5

ROBERT L. GOODWIN

Vice President

Andrea,

Here are ^{are} few extra
charts (or still
incorporated) for the
MSEH presentation.

I assigned MARE #12
based on where they
would fit.

T Bonds,

Bob



APR 89-31 A

INDUSTRY

SLOWDOWN

LOOKING?

1988 Savings Shortfalls:

- IBM
- DEC
- Apple
- Disney
- Price
- Microsoft

- 1-29 DURATION?

1000

1000

1000

1000

1000

1000

(31B)

Report of Equipment Shutdown
on information services

SHORT

- LAGGING 1-2 QUARTERS
EQUIPMENT BY

- SELECTIVE DOWNTURN

~~MAINFRAME~~ - RELATED

~~MINICOMPUTER~~ - RELATED

(31)

Wednesday, August 1st
to Sunday, August 5th 1900

Monday, August 6th
Tuesday, August 7th
Wednesday, August 8th

Thursday, August 9th
Friday, August 10th
Saturday, August 11th

MPRE-54A

Preliminary results
1989 forecast activity

330 interviews of
Information Services Users

25/11/11

at 10.30 - 11.00

at 11.15 - 11.45

at 11.55 - 12.25

at 12.35 - 13.05

Information Services

TPAS- 548

✓ Revenue growth, 1987-88 (Preliminary)

Delivery Mode

1987-1988
% change

Processing Services

Network Services

Software Products

Turnkey Systems

~~Professional~~
System Integration

Professional Services

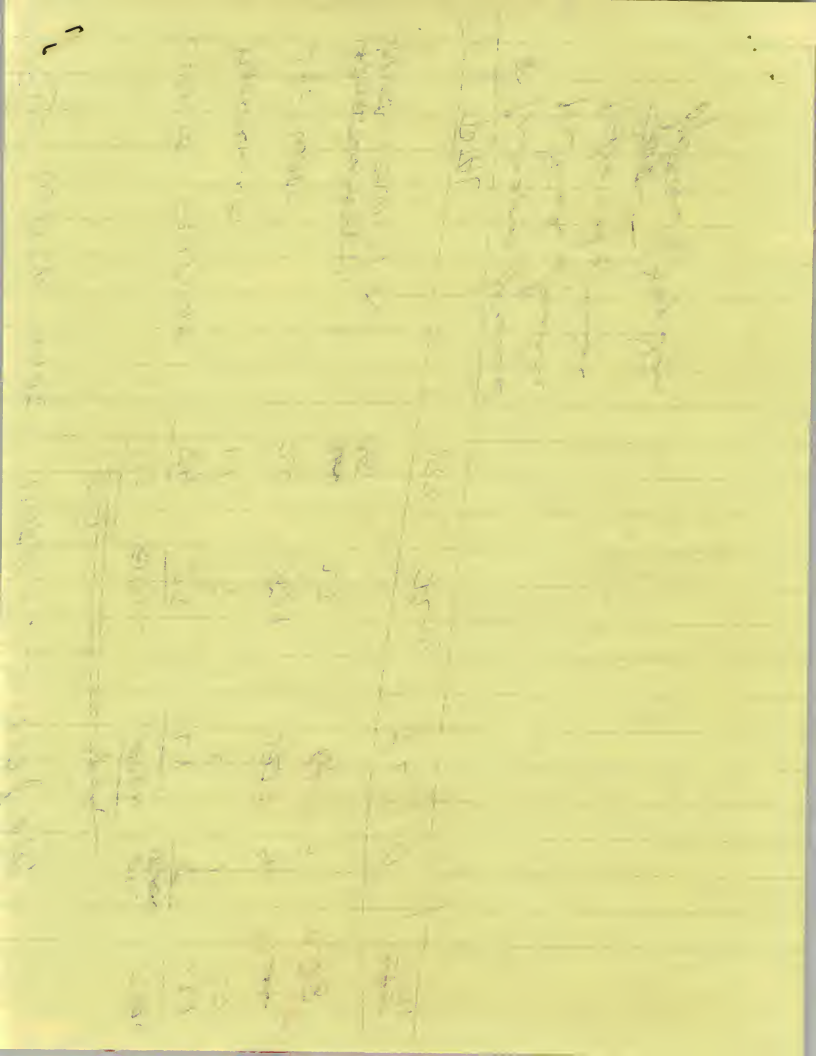
Industry average
75%

✓ 59c WORLD WIDE MARKETS - 1987 (\$B)

	<u>1987</u>		<u>1992</u>		
	US	EUROPE	JAPAN	ALL OTHERS	TOTAL
COMPUTER EQUIPMENT	54	33	28	6	121
MAINTENANCE	12	8	6	1	27
SOFTWARE	20	89	128	4	4144 45
PROCESSING/NETWORK	44	23	610	2	8278
COMPUTER SERVICES *	47				
	133	7273	52	13	270271

TOTAL

* Processing services
 Network services
 Professional services
 Computer
 System integration

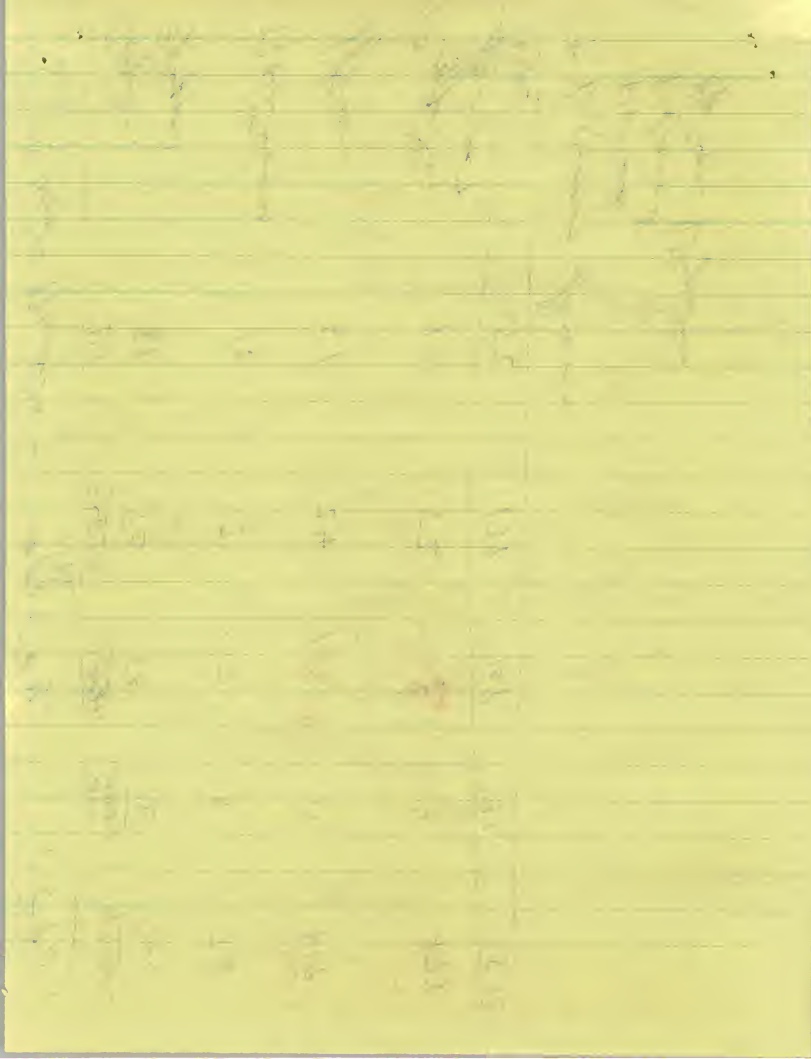


World Wide Networks - 1992 (1B)

590

	US	EUROPE	JAPAN	ALL OTHERS	TOTAL
Computer Equipment	88	50	50	12	200
Maintenance	16	13	7	2	38
Software	51	24	32 28	12	119 115
Computer Services*	97	52	24 20	4	173 177
TOTAL	252	139	109	30	530

* Processing Services
 Network "
 Informational "
 Systems Integration



Preliminary results, 1989 order survey

~~1987-88 same growth~~

<u>Delivery mode</u>	<u># of repondents</u>	<u>1987-88 revenue growth %</u>
Crossing Service	57 41	13 15 %
Network Service	24 20	35
Application Software	125 152	30 25
System Software	30 48	30
Turkey Systems	74 63	30 20
System Integration	31 23	31 31
Professional Service	74 91	25 23

March 11, 1911, Sunday

St. John's, N.S.

Went to church at 10:30. Service very good. Sermon by Rev. Mr. [unclear].

After church, called on [unclear] and [unclear].

Then to [unclear] and [unclear].

Home at 5:30. [unclear] [unclear] [unclear].

Wrote [unclear] [unclear] [unclear].

Read [unclear] [unclear] [unclear].

To bed at 10:00. [unclear] [unclear] [unclear].

Very pleasant day. [unclear] [unclear] [unclear].

Nothing more to write.

Good night.

Yours truly,
[unclear]

PUR 87-35

76

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54

54a,b

55

56

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58

59

59c,d

RG2

